

REMARKS

The Examiner is requested to reconsider the rejection of Claims 1 - 15 under 35 U.S.C. 102(e) as being anticipated by U.S. 2001/0016924 to Yahiro, by JP 11-168049 and by U.S. Patent 5,972,794 to Katakura, et al. (collectively, "the References").

Applicants have amended the claims and cancelled others in which the substantive matter was incorporated into independent Claims 1 and 8 or both. Claims 1 and 8 and newly added process claim 16 add limitations which were heretofore not found in Applicants' claims.

In view of the amendments to the claims, none of the references now discloses each and every element claimed by Applicants.

The present invention is a technique for providing micrometer range thickness aperture members having a crystalline membrane through which the aperture is placed supported around the periphery by a frame of the crystalline material. The high precision apertures resulting from the present invention permit fabrication with higher quality and higher contrast than that found in the prior art references cited by the Examiner. In the present invention, aperture members are achieved in which the crystalline membrane, which is about 1 to 10 micrometers thick is supported around the periphery by an epitaxial frame of the same crystalline material.

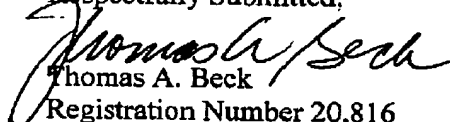
The epitaxial conformation of crystallinity is an important feature of the present invention. The prior art cited by the examiner does not recognize the need for same in their disclosures. The Examiner contends that because the processes of Yahiro and Katakura are what he deems to be "the same" that the epitaxial phenomenon also exists.

1 The Examiner's "anticipation" rejection of the claims is incomplete as he has not provided the proper foundation for the rejection. The portion of the rejection of claim 1 et seq., relating to "epitaxial" is based upon assertions by the Examiner as to what appears to be the inherent content of the prior art. That is, the Yahiro and Katakura methods (processes) are NOT

step-by-step identical to Applicants' invention. (See, e.g., Yahiro: [0036] where "...subsequently both surfaces of the substrate are oxidized thermally..."). Thermal oxidation must have an effect on the prior art substrates or the inventors would not have done it. Applicants respectfully direct the Examiner's attention to 37 C.F.R. 1.104(d)(2) which states "...When a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons..." Applicants submit that the Examiner should comply with the excerpt of 37 CFR 104 cited above and provide the required documentation (either prior art or personal) which would support the Examiner's assertion as to the epitaxial nature of the prior art layers as related to Applicants' invention.

The Examiner is requested to allow this case as a result of the amendments to and cancellations of the claims.

Respectfully Submitted,


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I hereby certify that this paper is being mailed via telefax to (703) 872-9306 on the date indicated below to addressed to the Commissioner of Patents and Trademarks, Post Office Box 1450, Alexandria, VA 22313-1450

Signature


Thomas A. Beck

Date: May 4, 2005